



2010/11 WSF Summary Findings Report

*Washington State Transportation Commission 2010/11
Ferry Research Initiative*



Washington State
Transportation Commission

Conducted by
Market Decisions Corporation



Methodology

- ❖ **Winter / Summer Surveys:** A total of 8,463 ferry riders completed the Winter (n=4,173 - April 6-May 28, 2010) and Summer (n=4,315 - July 18-Aug 18, 2010) survey yielding a maximum sample variable of +/- 1.1% at the 95% confidence level.
- ❖ **Freight Study:** A total of 101 telephone interviews were conducted with a random sample of WSF freight customers truck schedulers between April 27 - May 4, 2010 yielding a maximum sample variable of +/- 9.8% at the 95% confidence level.
- ❖ **General Public Study:** A total of 1,200 Respondents (max sampling variability of +/-2.8%) were interviewed by telephone between May 12-15, 2010 who live in one of the target counties/areas (King, Vashon Island, Snohomish, Pierce, Clallam, Island, Jefferson, Kitsap, San Juan, or Skagit).
- ❖ **Capital Funding Study:** Only those ferry riders who are members of FROG (Ferry Riders' Opinion Group) were interviewed between November 9-28, 2010. A total of 1,951 completed surveys were received, resulting in a maximum sampling variability of +/-2.22% at the 95% confidence level.
- ❖ **Mode Shift Study:** Only those ferry riders who are members of FROG (Ferry Riders' Opinion Group) and who, in the last 3 months, drove on during peak hours were interviewed. A total of 1,317 completed surveys were received between October 11-20, 2010, resulting in a maximum sampling variability of +/-2.70% at the 95% confidence level.



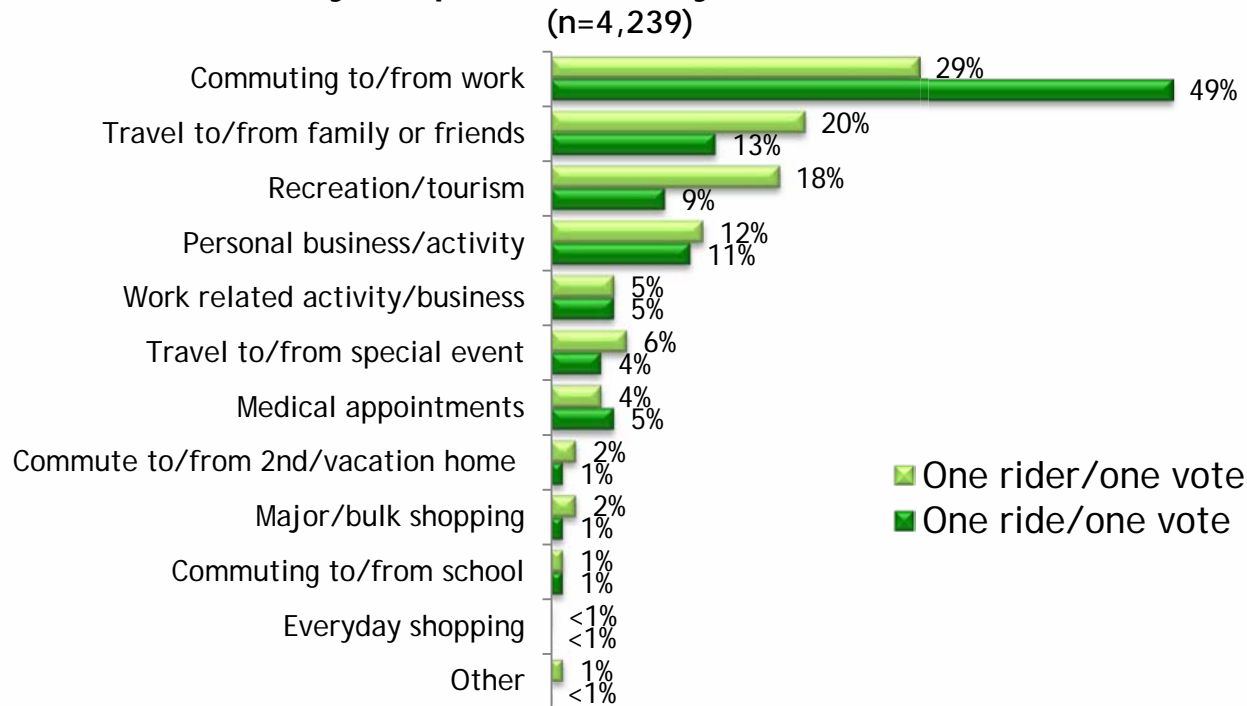
General Ridership



Purposes of Ferry Rides

- ❖ Although a smaller proportion (29% this year, 25% in 2008) of summer riders primarily ride to commute to and from work than in the winter wave (39% this year, 36% in 2008), the number of commuters is similar because total ridership is higher in summer.
- ❖ Commuters account for fewer than 1 out of 3 ferry riders (2 out of 5 in Winter), but account for nearly half the volume.

Primary Purposes of Ferry Rides (Summer)



Winter 2010 (n=4,168)
39%
14%
6%
15%
8%
4%
7%
2%
1%
1%
1%
<1%

Q28 Thinking about your LAST FERRY RIDE ONLY, which of the following was the PRIMARY PURPOSE for that specific trip?



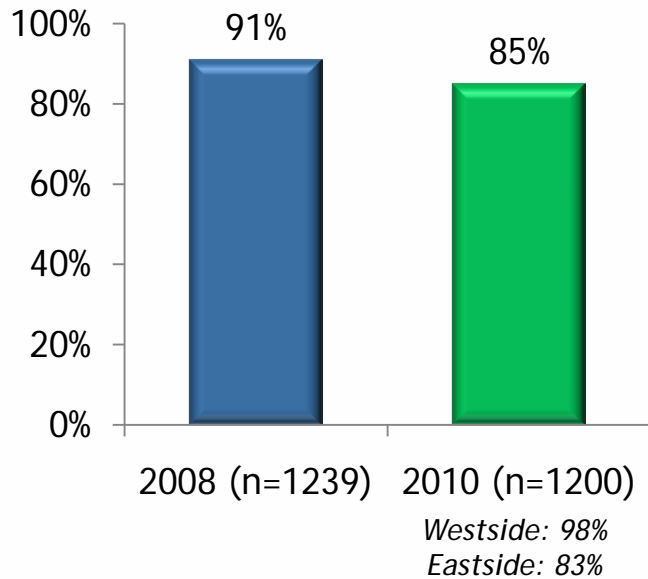
General Public Within Puget Sound Basin



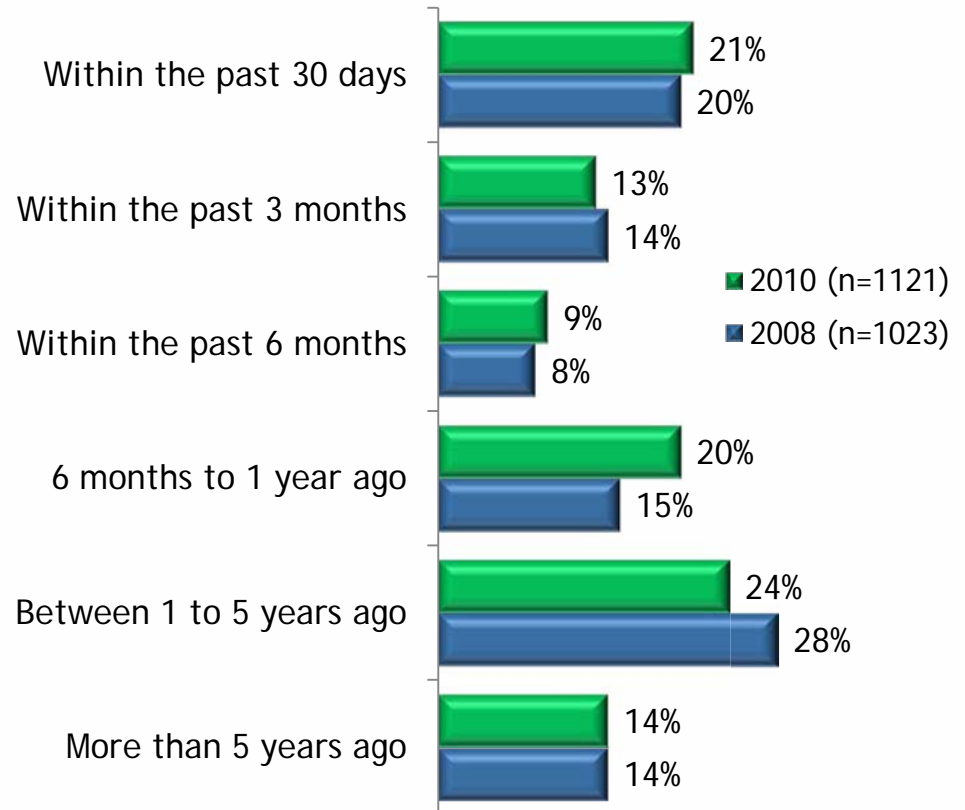
Ferry Ridership (Within General Public)

- ❖ A significantly lower percent of Puget Sound residents say they have never ridden WSF in 2010, compared to 2008 (91% vs. 85%, respectively).
 - However, the last trip took place at approximately the same time as in 2008.

Ferry Ridership



Last trip on WSF



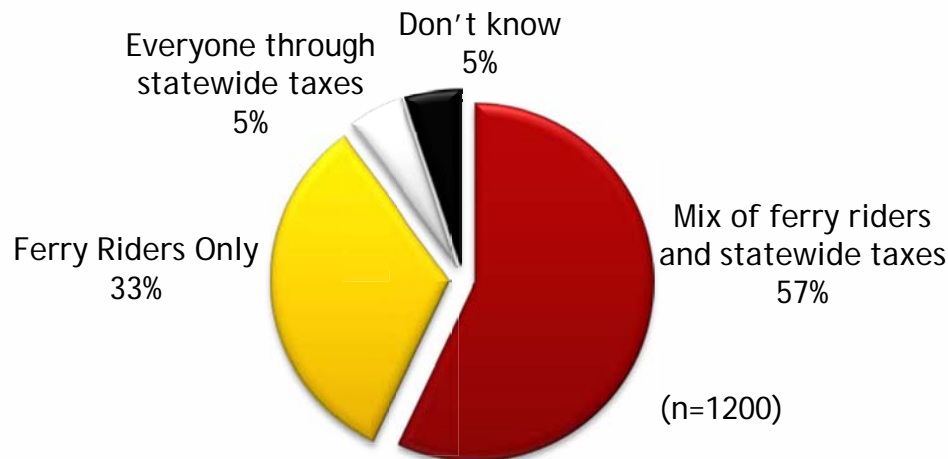
F1 Have you ever ridden a Washington State Ferry?
F2 When was the last time you rode a Washington State Ferry? Was it...



Daily Operations Funding Opinions (Within General Public)

- ❖ Almost three in five Puget Sound Residence (57%) think that the daily operating expenses for WSF should be funded through a mix of ferry riders and statewide taxes.
 - There are no significant difference between East and Westside communities on how daily operations should be funded.
- ❖ Among the general public who think the daily operations should be funded through a combination of fares and taxes, a third (33%) don't know what percent should be paid by riders. Those who have an opinion, state that on average riders should pay 56.6% of the daily operating costs.

How WSF Daily Operations Should Be Funded



Ferry riders should pay on average 56.6% of WSF's daily operating costs

- Eastside residents report that riders should pay an average of 57.6% vs. 49.2% for Westside residents.

NEW4 Which of the following three ways to pay for the daily operations of the ferry system do you support the most? Do you believe that the cost of daily operations should be covered by:

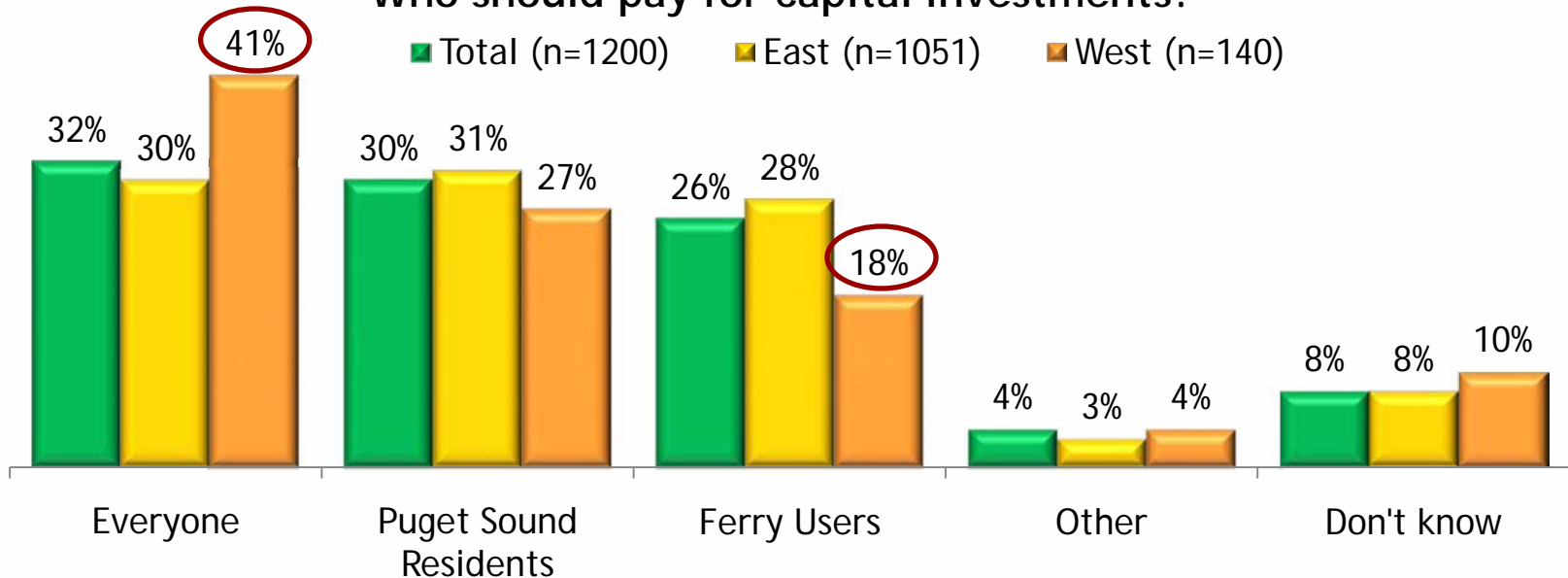
NEW5 What percent of the daily operation costs do you feel riders should pay?



Capital Funding Opinions (Within General Public)

- ❖ Residents are divided in roughly thirds when it comes to who should pay for capital investments.
 - Westside residents are significantly more likely to say “everybody” should pay and they are less likely to want “ferry users” to pay compared to Eastside residents.

Who should pay for capital investments?



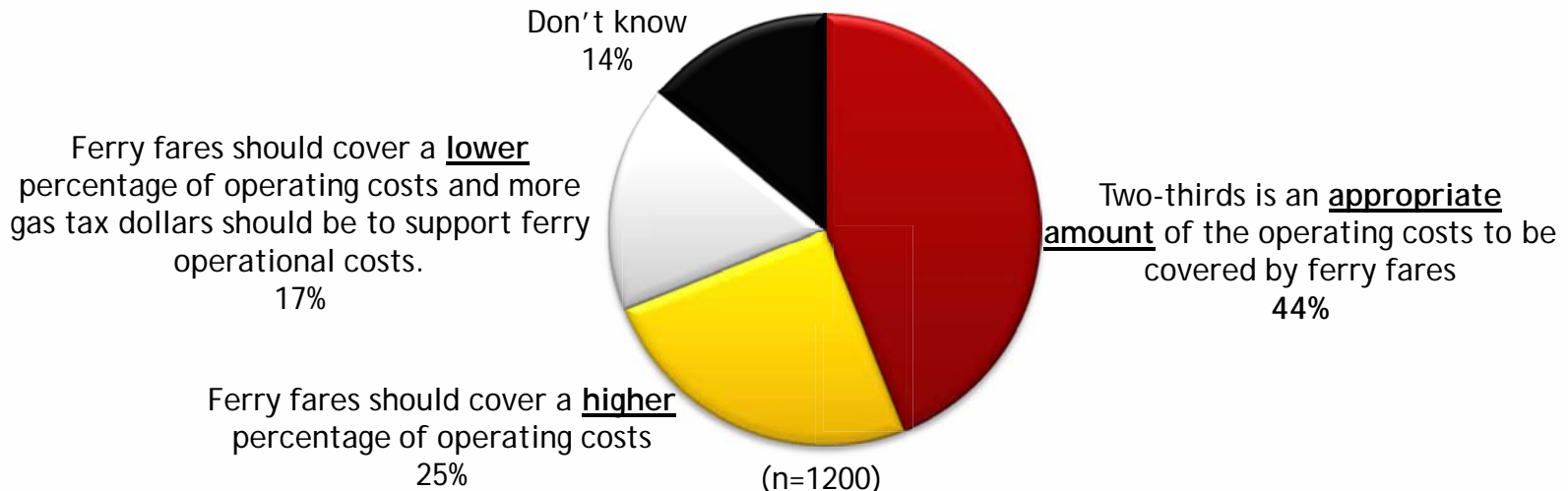
NEW8 Daily ferry operations are one cost, and they are covered about two-thirds by ferry fares and one-third by state gas tax subsidies. But there is also a cost to build new or replacement ferries and terminals as the fleet ages or to add new boats as the population of Washington grows. The state needs to budget for this capital cost through some form of taxes. In your opinion, should the state raise the money for new or replacement ferries and terminals from:



Farebox Recovery Rate Opinions (Within General Public)

- ❖ On average, Puget Sound residents think that fares cover 44.2% of WSF's annual operating expenses (Eastside 43% vs. 51% Westside).
- ❖ Almost half (44%) think that it is appropriate that ferry fares cover 2/3 of operating expenses.
 - Westside residents are significantly more likely to think that fares should cover a smaller percentage (27% vs. 15%), where as Eastside residents think that fares should cover a greater percentage (26% vs. 13%).

How Much Should Fares Cover of Annual Operating Costs



NEW6 What percentage of WSF's annual operational costs do you think fares currently cover?

NEW7 On average, fares cover about two-thirds of the ferries' yearly operating costs. The other third is subsidized by gas taxes raised from citizens across Washington State. Knowing that, do you feel ferry fares should cover a higher, lower, or the current percentage of yearly ferry operational costs?



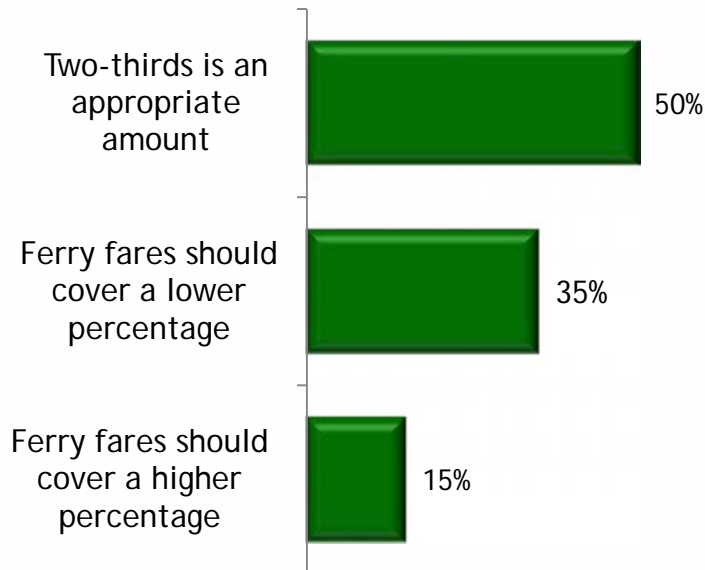
Farebox Recovery Rate Opinions

(Within Ferry Riders)

58% - Correctly estimated ferry fare coverage of WSF's operational costs

35% - Don't know/couldn't say
(n=4,058)

Coverage of WSF's Operational Costs
(n=3,896)



Q10 What percentage of WSF's annual operational costs do you think fares currently cover?

Q11 On average, fares cover about two-thirds of the ferries' yearly operating costs. The other third is subsidized by gas taxes raised from citizens across Washington State. Knowing that, do you feel ferry fares should cover a higher, lower, or the current percentage of yearly ferry operational costs?

- ❖ Of the ferry riders who provided an estimate of the percentage of WSF's annual operational costs covered by ferry fares, the perception is **relatively close** to the actual number (58% vs. 66% actual).
 - However, more than one third (35%) of riders stated that they didn't know or couldn't say.
- ❖ Once the actual percentage is revealed, half (50%) of ferry riders agree that **two-thirds is an appropriate amount**.
 - Over one third (35%) feel that ferry fares should cover a lower percentage of operating costs and more gas tax dollars should be diverted from currently planned statewide transportation activities to support ferry operational costs.
- ❖ Riders who always board the ferry by walking or biking are more likely to agree that two-thirds is an appropriate amount.



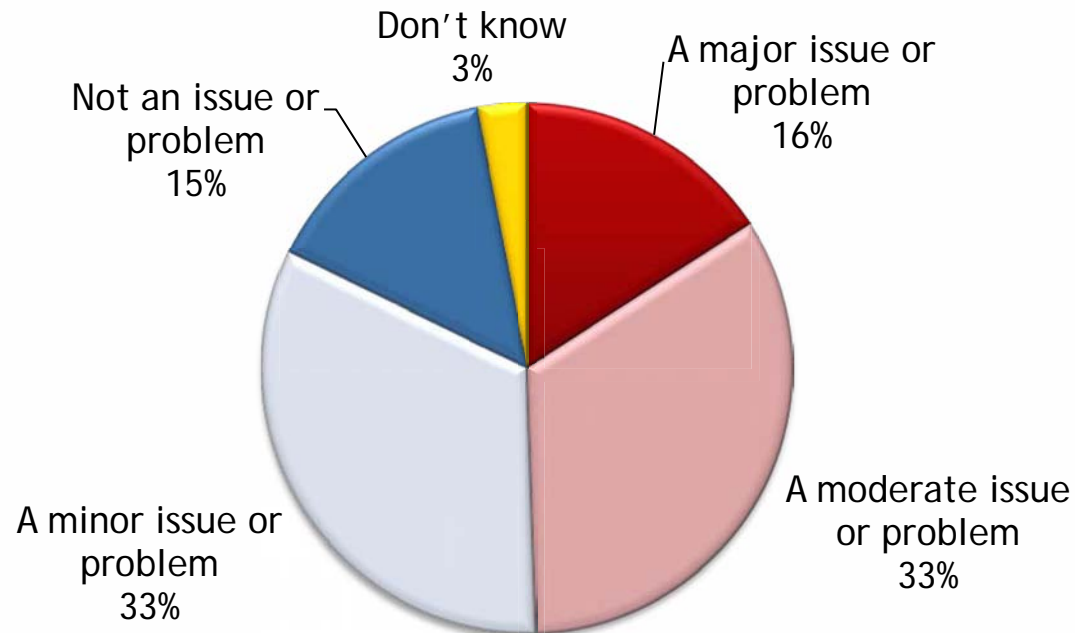
Freight Customers



Wait Times (by Freight Customers)

- ❖ Just under half (49%) of freight customers report that wait time during peak travel periods is either a *major* (16%) or *moderate* (33%) issue.

Impact of Wait Time During Peak Hours



(n=101)

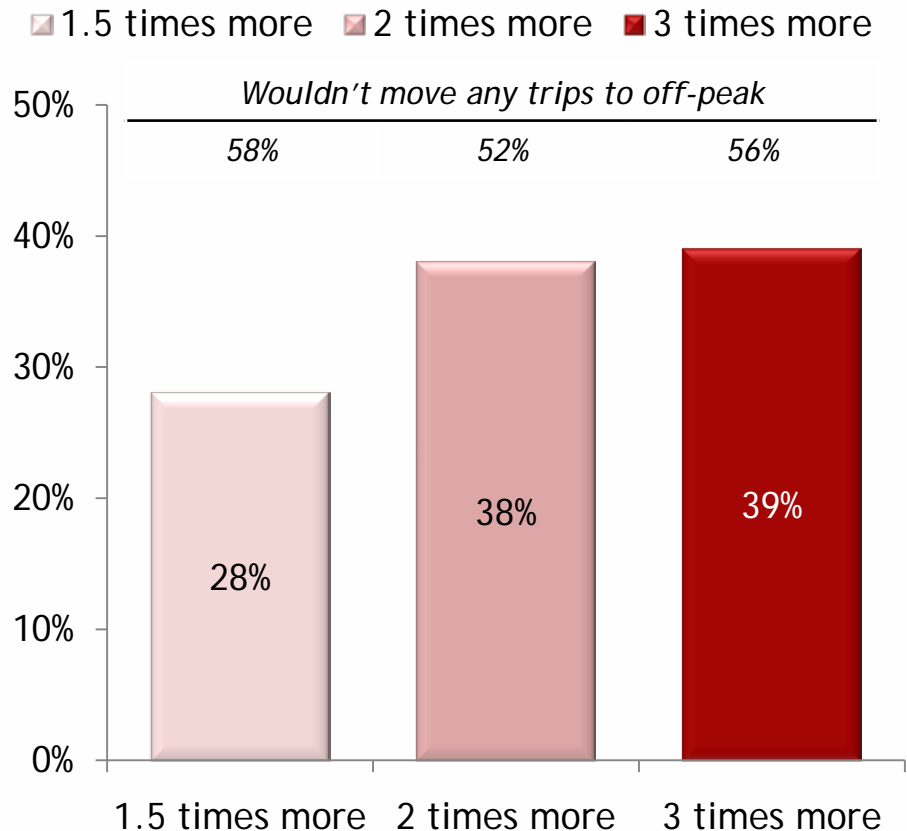
Q11 One problem that commercial vehicle drivers have reported during peak vehicle commute travel periods is how long they have to wait before they can drive on the ferry. Overall, how big of an issue or problem would you say the wait time is for you or your drivers?



Congestion Pricing (by Freight Customers)

- ❖ The higher the surcharge/premium for peak hour travel, the more truck trips would be shifted to off-peak hours.
- ❖ If the premium was 3 times the current fare, freight customers report that, on average, 39% of their truck trips would shift to off-peak hours.
 - It should be noted that more than half of freight customers would/could not move their truck trips.

Impact of Peak Fare Increase



Q25-27 If freight customers who use the ferry during peak travel periods were charged one and a half times/double/three times the fare currently charged for trucks, what percent of your truck trips would you move to off-peak times?



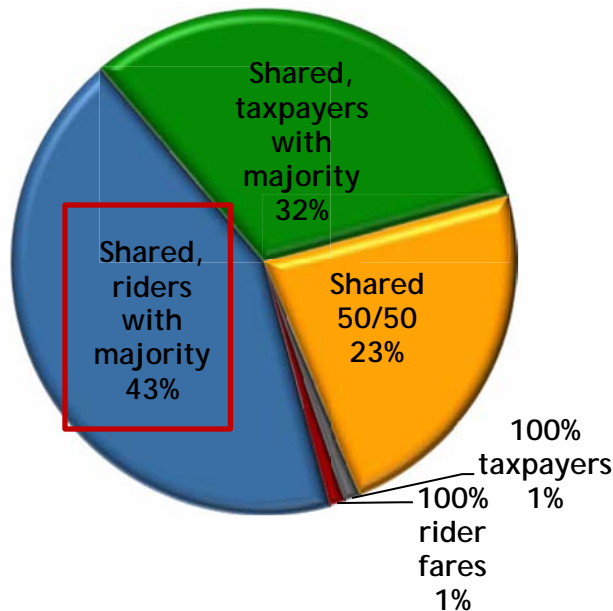
Capital Funding Issues



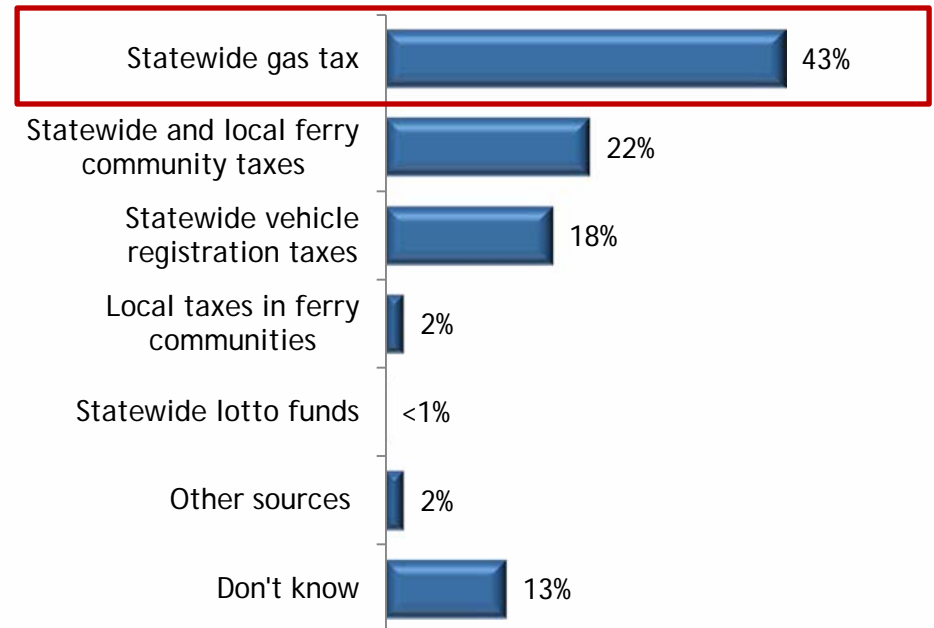
Current Sources of Operational Funding

- ❖ Only 43% correctly identified the source of WSF funding for daily operations in the capital funding study.
- ❖ When told that ferry fares cover 65% of WSF operating costs, 43% of riders believe that the remaining 35% is covered by statewide gas taxes.

Sources of Operational Funding
(n=1,951)



Coverage of Remaining Operational Costs
(n=1,951)



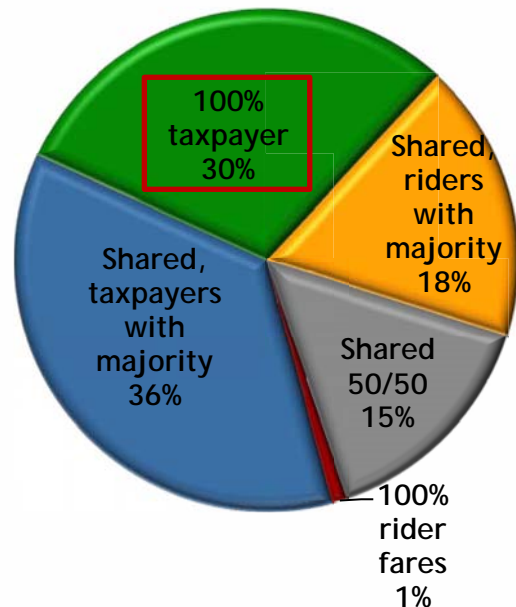
- C1a Based on what you have seen or heard, which ONE of the five statements below best represents where Washington State Ferries (WSF) currently gets their money for daily operations?
- C1b In reality, ferry fares cover about two thirds (65%) of the operational costs of running the ferries. Based on your knowledge, where does the money to cover the remaining 35% of WSF operational costs come from?



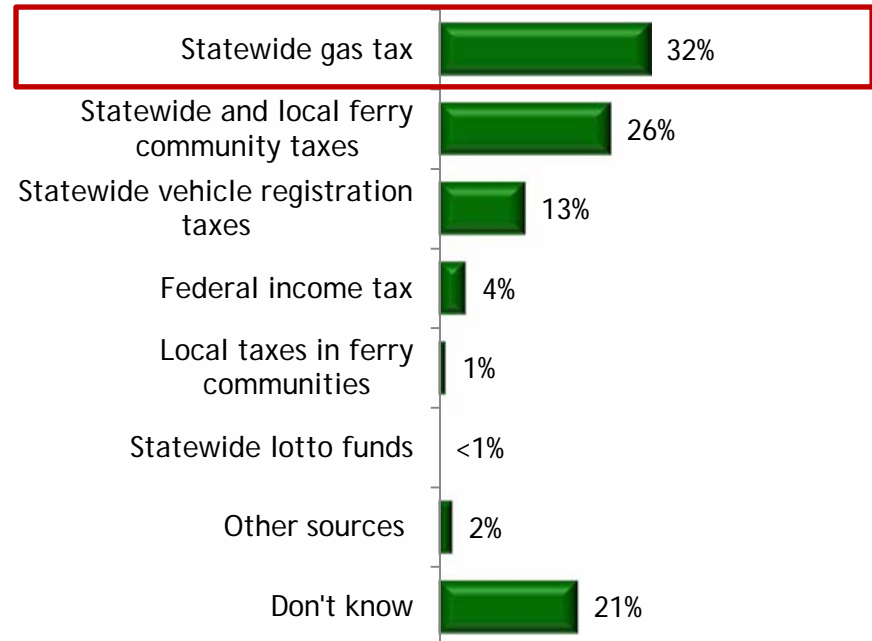
Current Sources of Capital Funding

- ❖ Roughly one third (30%) correctly identify taxpayers as the source of 100% of WSF capital funding in the capital funding study.
- ❖ The largest proportion of ferry riders - 32% - believe WSF's capital needs come from statewide gas taxes.

Sources of Capital Funding
(n=1,951)



Coverage of WSF Capital Needs
(n=1,951)



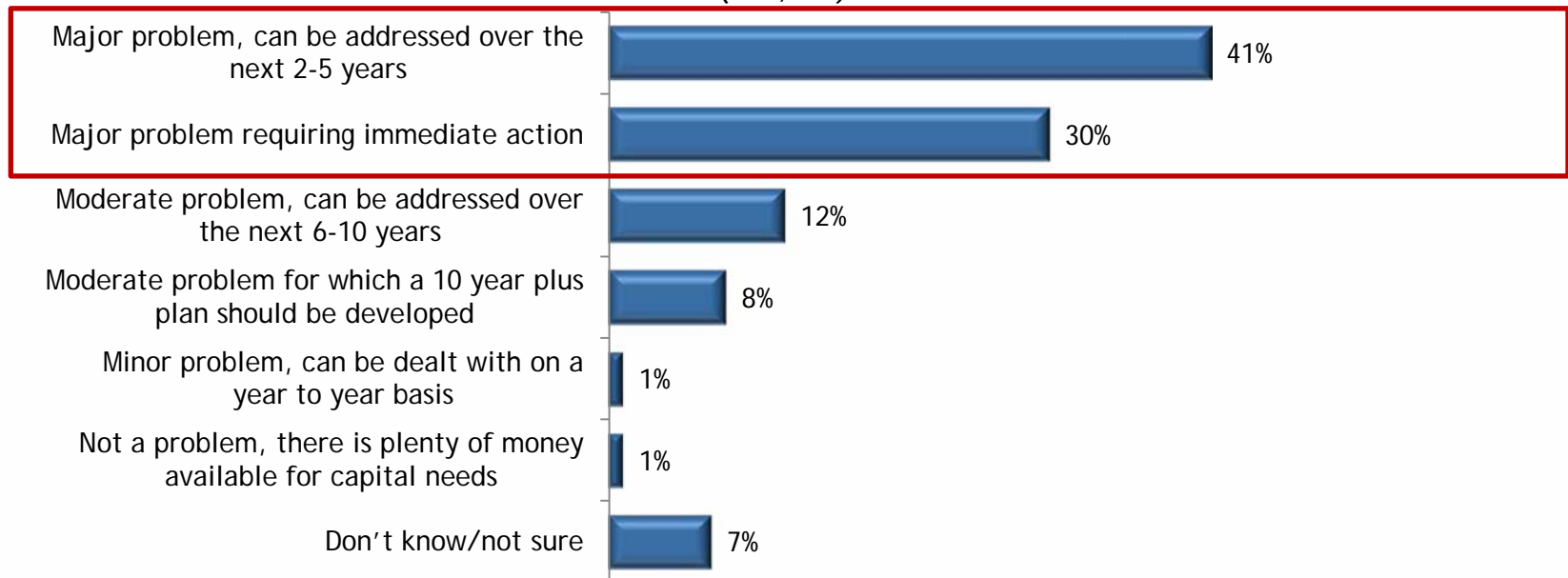
- C2a Again based on what you have seen or heard, which ONE of the five statements below best represents where Washington State Ferries (WSF) currently gets its money for capital funding?
- C2b In reality, ferry fares do not provide any funding for WSF capital needs. Based on your knowledge, where does the money to cover the WSF capital needs come from?



Capital Funding Problem

- ❖ Nearly three fourths (71%) of ferry riders in the capital funding study feel that funding for WSF's capital needs is a **major problem**, with one third (30%) of those respondents indicating that it needs to be **dealt with now** and 41% stating that it needs to be addressed in the **next 2-5 years**.

Capital Funding Problem
(n=1,951)



C3 Since capital funding isn't covered by ferry fares, how big of a problem do you think funding for WSF capital needs are?

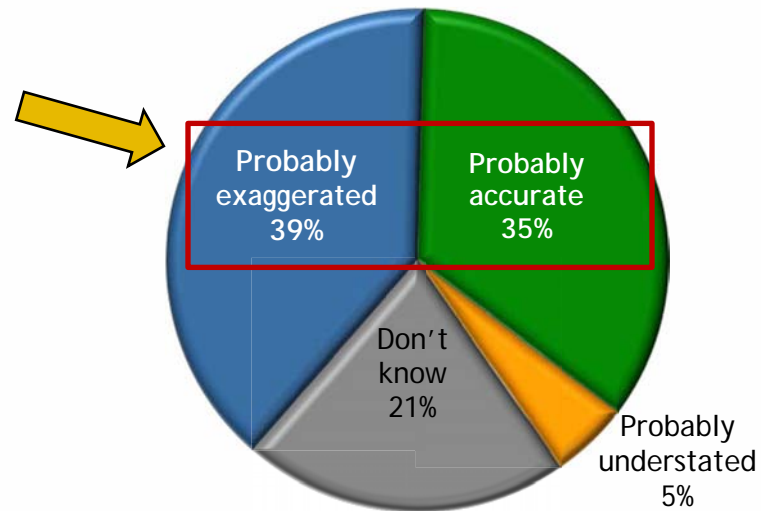


Rider Opinion of WSF Capital Funding Need

- ❖ Two fifths (39%) say the \$4 billion needed for capital funding is **exaggerated**; however, 35% believe that the quoted deficit is **probably accurate**.

C9 If you heard that the WSF long-term capital funding problem equates to an unfunded need for approximately half a million dollars a day in **additional funding just to maintain the current level of service** over the next 22 years (a total of \$4 billion in additional funding), would you say that this amount is...

Capital Funds Need is ...
(n=1,951)



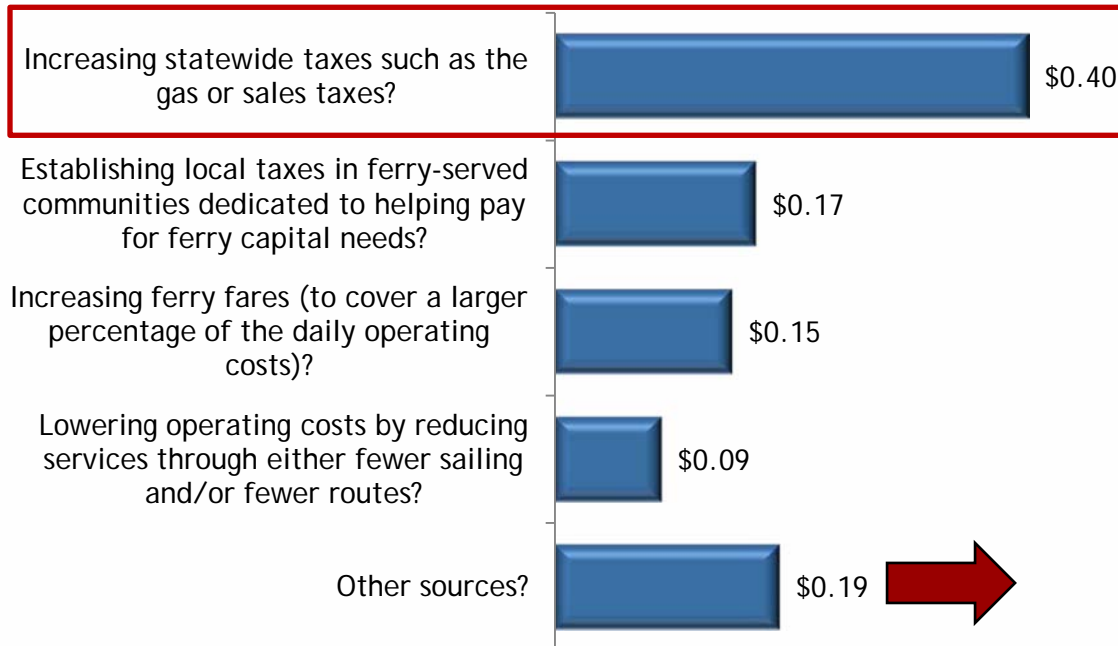
Capital Funds Need is	SEA/ BAIN n=510	SEA/ BREM n=215	EDM/ KIN n=361	FAU/ VAS n=163	FAU/ SOU n=68	SOU/ VAS n=15*	PTD/ TAH n=55	MUK/ CLI n=335	PTT/ COU n=51	ANA/ FRI n=164	INTR SJI n=14*
Probably exaggerated	39%	39%	41%	35%	35%	44%	46%	38%	28%	39%	40%
Probably accurate	37%	33%	32%	40%	38%	44%	27%	34%	40%	40%	33%
Probably understated	6%	7%	6%	2%	6%	0%	4%	6%	2%	5%	3%
Don't know	18%	21%	21%	22%	22%	11%	23%	23%	30%	16%	25%



Capital Funding Revenue Sources

- ❖ On average, ferry riders in the capital funding study believe that \$.40 of every dollar of WSF's capital funding needs should come from an increase in statewide taxes, such as gas or sales tax.

The Capital Funding Dollar Should Come From... (n=1,951)



Other Top Suggested Revenue Sources (Percentages below are based on 960 riders who in C10 said "other sources")

Improve WSF administrative & management spending	18%
Transportation funding	16%
Federal funding	10%
Reduce WSF employee benefits & wages	10%
WSF staff reductions	8%
Lottery/gambling funding	7%
Advertising & corporate sponsorship	7%
Vehicle licensing & registration fees	6%

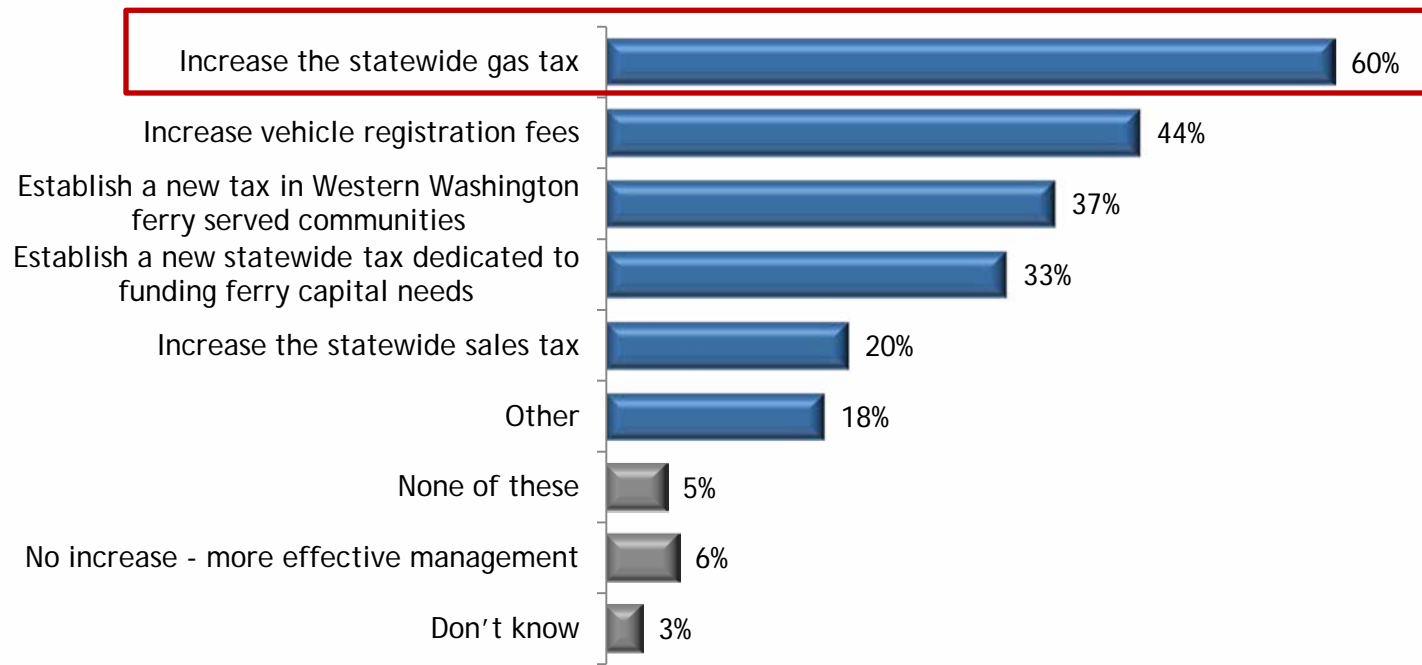
C10 If the following revenue sources were used to pay for WSF's capital funding needs, what percent of the total funding need do you believe should come from each revenue source?



Recommended Capital Funding Methods

- ❖ Of the funding options tested, increasing the statewide gas tax has the highest support (60%) for funding WSF capital needs, while an increase in the statewide sales tax has the least support in the capital funding study.

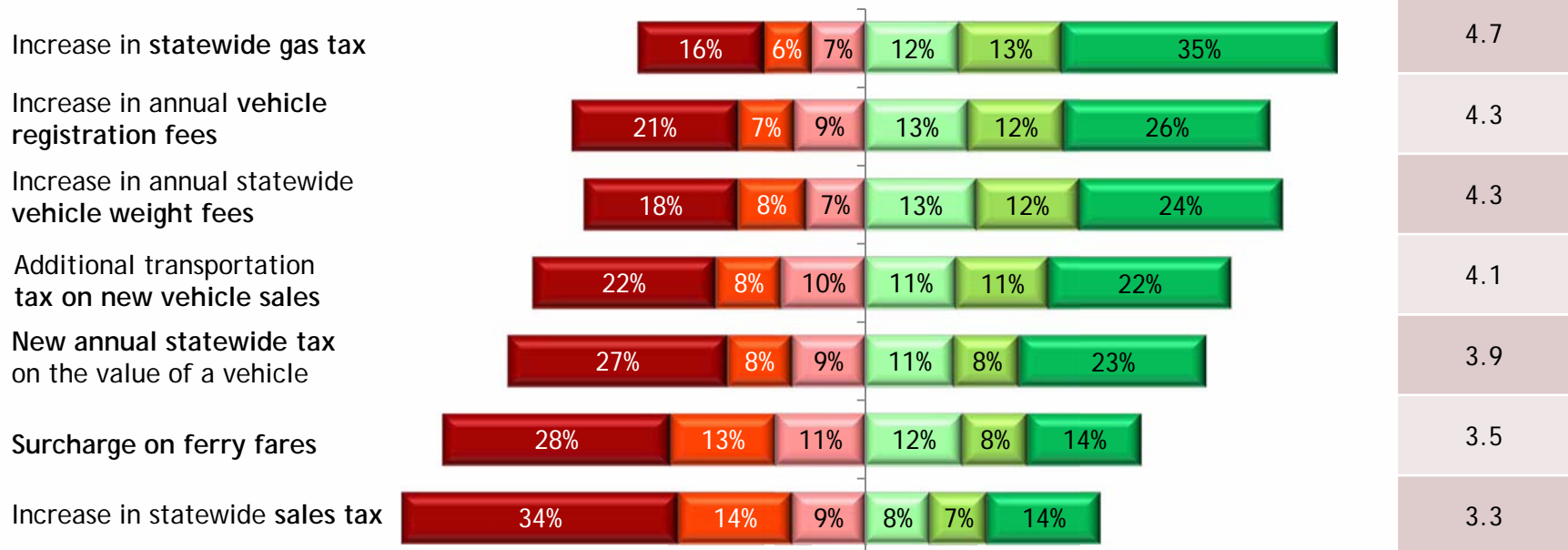
Recommended Capital Funding Methods
(n=1,951)



C11 Which of the following funding methods, if any, would you recommend be used to fund the capital needs of the ferries?



- ### Support of WSF Capital Funding
- Would not support at all* ← (n=1,951) → *Would completely support*



Note: Ratings for "neutral" (4) and "don't know" are not shown

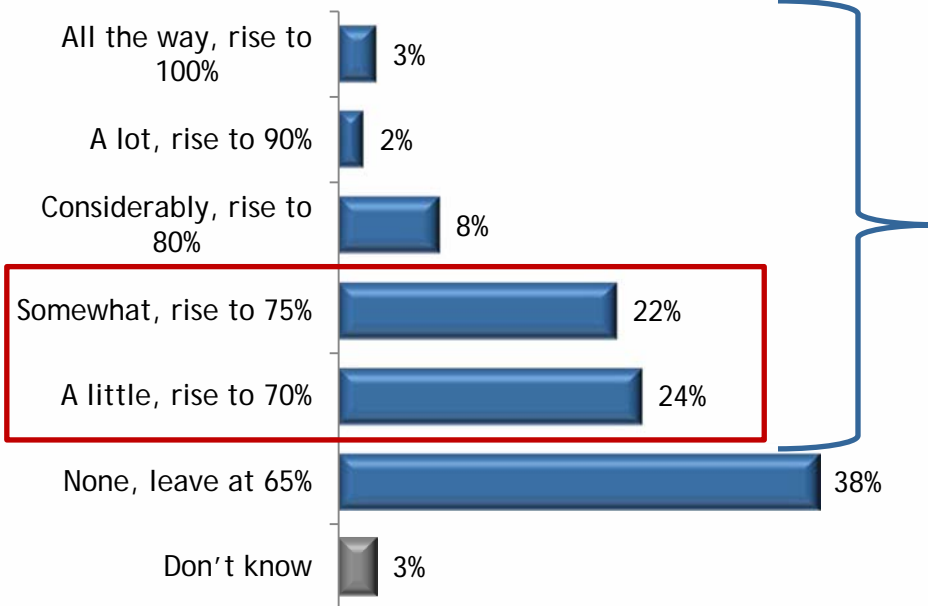
C12 How supportive, if at all, would you be of...



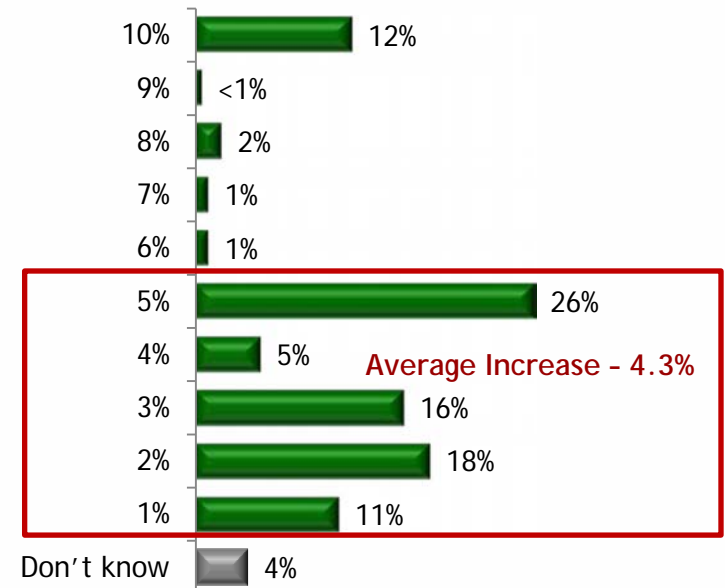
Increase in Fares for Capital Funding

- ❖ Three fifths (62%) of ferry riders in the capital funding study support increasing the fare coverage of operational costs - 24% say the recovery rate should be 70%, 22% say 75%, 8% say 80%, 2% say 90%, and 3% say fares should cover all operating costs to free money for capital funding.
 - Roughly two fifths (38%) do not support any increase above the current 65% recovery rate.
- ❖ Those who support higher coverage of operating costs from fares to free up money for capital funding feel fares should increase about 4% annually, on average.

Fare Increase Goal for Capital Funding
(n=1,951)



Reasonable Annual Increase to Achieve Goal
(n=1,157)



C13 How much, if any, would you suggest fares be increased to cover more of the daily operating costs?

C14 To achieve this goal, fares should be raised an additional...



Support for Fare Change for Capital Funding

- ❖ More than two fifths (45%) of ferry riders in the capital funding study would completely support charging an additional \$.10 per fare with the monies collected going into a dedicated fund for ferry capital improvements.
- ❖ One third of riders would not support at all a multi-ride ticket priced 20% less than a single ride ticket (32%) or charging an additional \$1-5 per vehicle ticket and \$.50 per passenger ticket (33%).



C15 How supportive, if at all, would you be of... (1 = "Would not support at all"; 7 = "Would completely support")

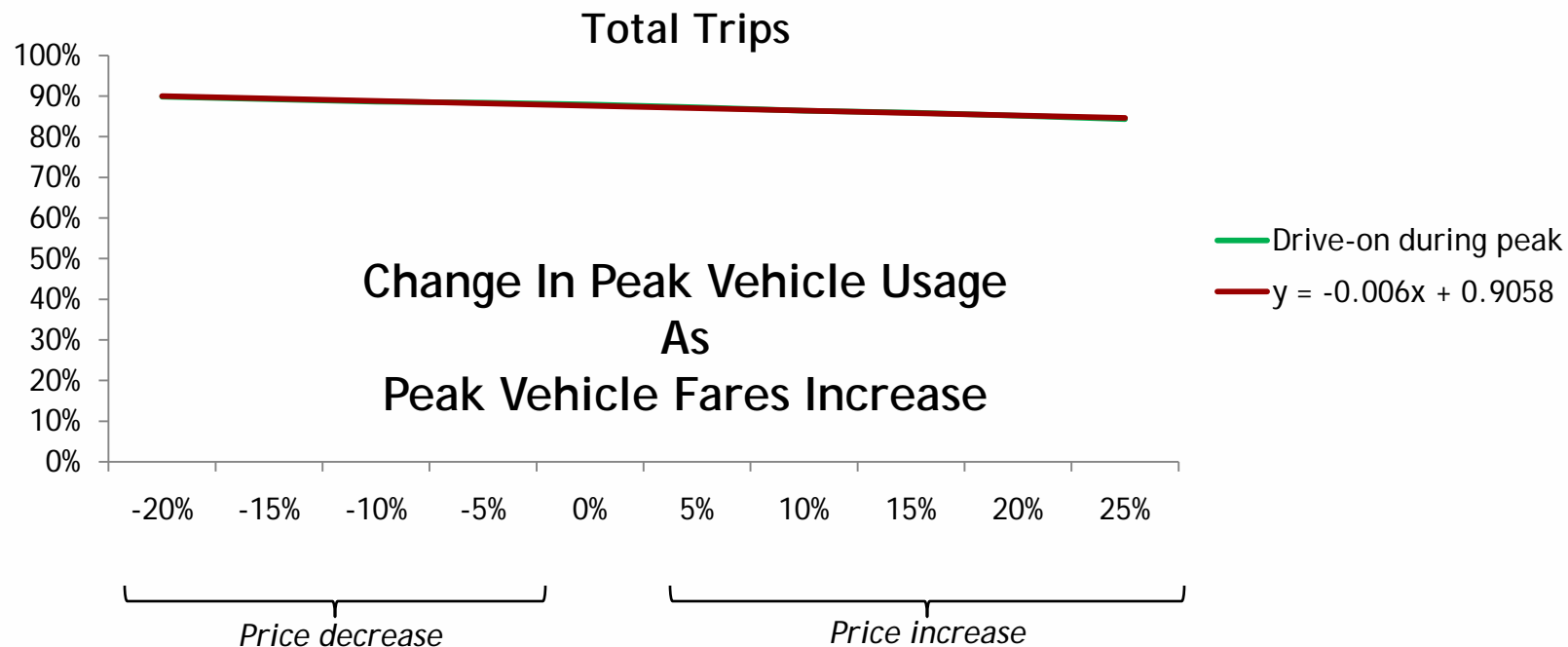


Mode Shift & Fare Elasticity



Impact of Fare Levels On Peak Vehicle Drivers' Behavior

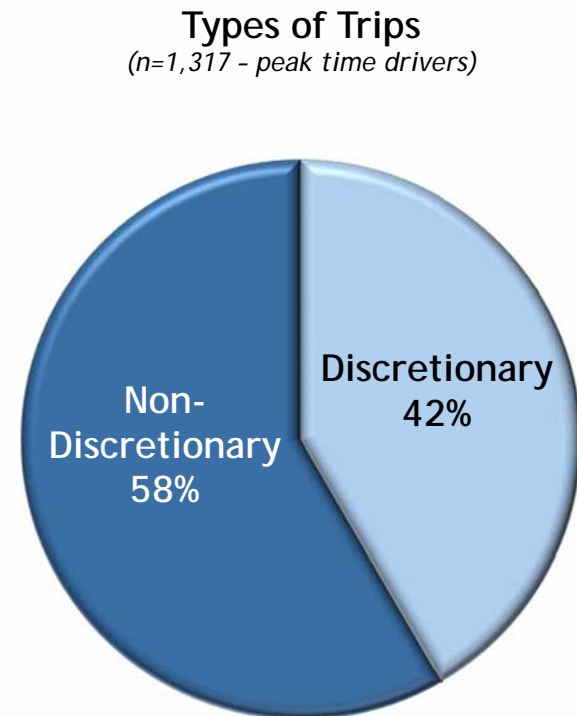
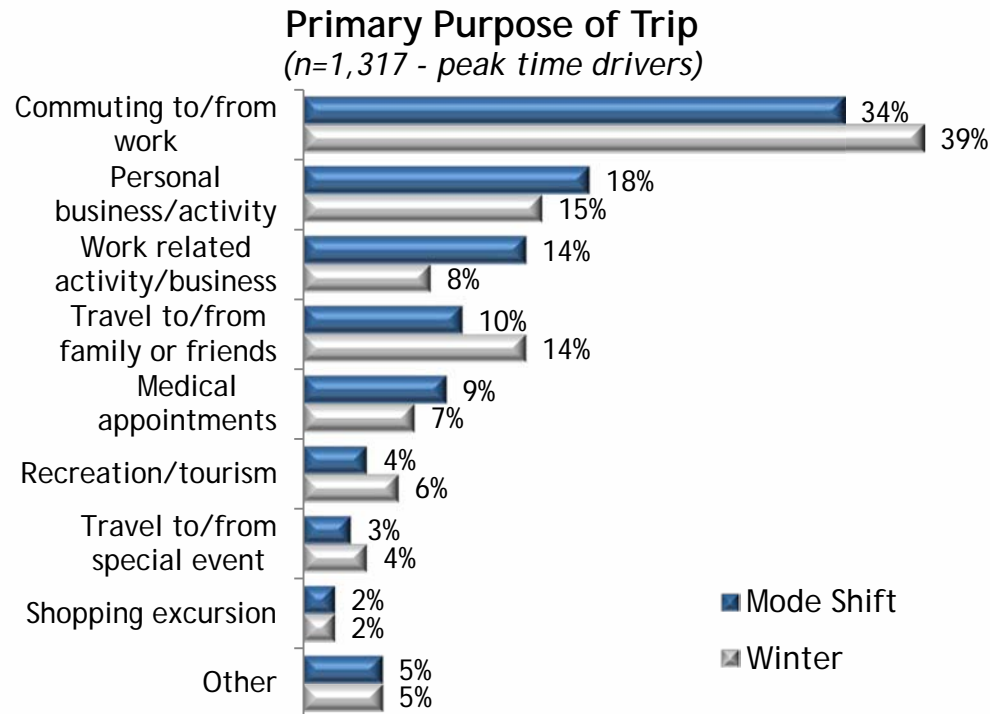
- ❖ Similar to the 2008 results, the 2010 study found that there is very little decline in ridership as the fares are increased.
 - Elasticity is a measure of the impact of increasing fares on ridership. Increases in fares are said to be inelastic when a 1% increase in fares does not cause at least a 1% decrease in ridership. The slope of the line (the number in front of the "X" value where "X" is the fare increase) indicates how elastic or inelastic the relationship between fare increases and ridership are. The closer to "0" that number is, the more inelastic fares are said to be. The slope of the line (-.006) shows that fares are inelastic up through a 25% increase.





Peak Vehicle Drivers: Trip Purpose Specific

- ❖ One third of peak hour drivers indicate **commuting to/from work** as the primary purpose of their last ferry trip.
 - Special event and shopping excursion travel accounted for only 5% of total responses.
 - Over half of Fauntleroy/Southworth riders report the purpose of **commuting to/from work**, while 21% of Port Townsend/Coupeville riders indicate traveling for **tourism/recreation**, both significantly more than riders of other routes.



Q4 What was your primary purpose for the trip described above?



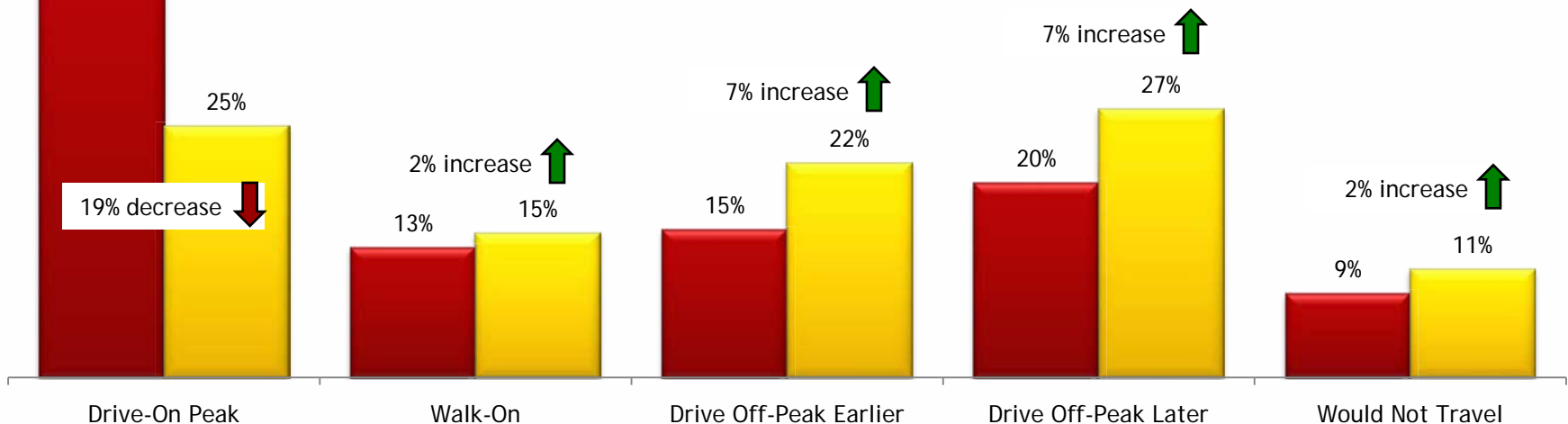
Simulator Result: Best vs. Base Case

- ❖ The graph below shows the results of making driving on at peak a less attractive option for drivers. This would represent the maximum mode shift based on the attributes tested.
 - To do this, the following levels were set for the base case: A 25% increase in peak vehicle fares; An additional 2 boat wait for peak vehicle drivers; A 20% decrease in walk-on fares; and A 20% decrease in off peak vehicle fares.
- ❖ By selecting the options that make driving on at peak relatively more costly in terms of money (45 percentage point spread between peak vehicle fares and off peak vehicle fares and walk-on fares) and time (2 additional boat wait for peak vehicle drivers), the **simulation would suggest that a maximum of 19 percentage points of peak vehicle drivers can be shifted** (2 percentage point increase in walk-on at peak and 14 percentage points in driving off-peak (either earlier or later)).
 - There would also be a total system-wide loss of ridership of 2 percentage points.

TOTAL: Base vs. Best Case

(increases/decreases reported in percentage points)

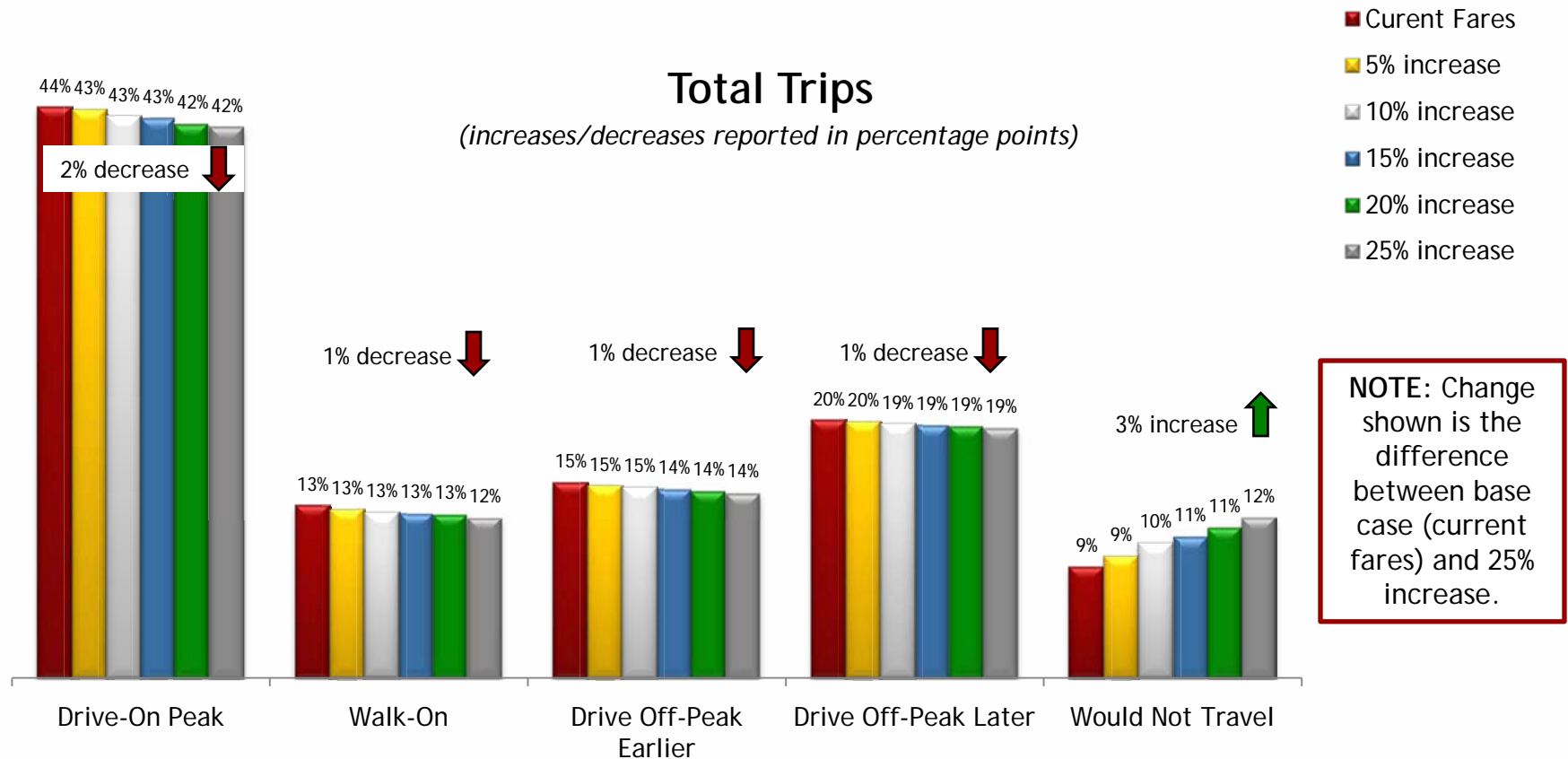
■ Base ■ Best





Simulator Result: *Across the Board Fare Increases*

- ❖ Raising drive-on and walk-on fares by the same percentage does not change the mode peak vehicle drivers will use.
- ❖ The overall result of the 25% fare increase could be a 3 percentage point decrease in total ridership.





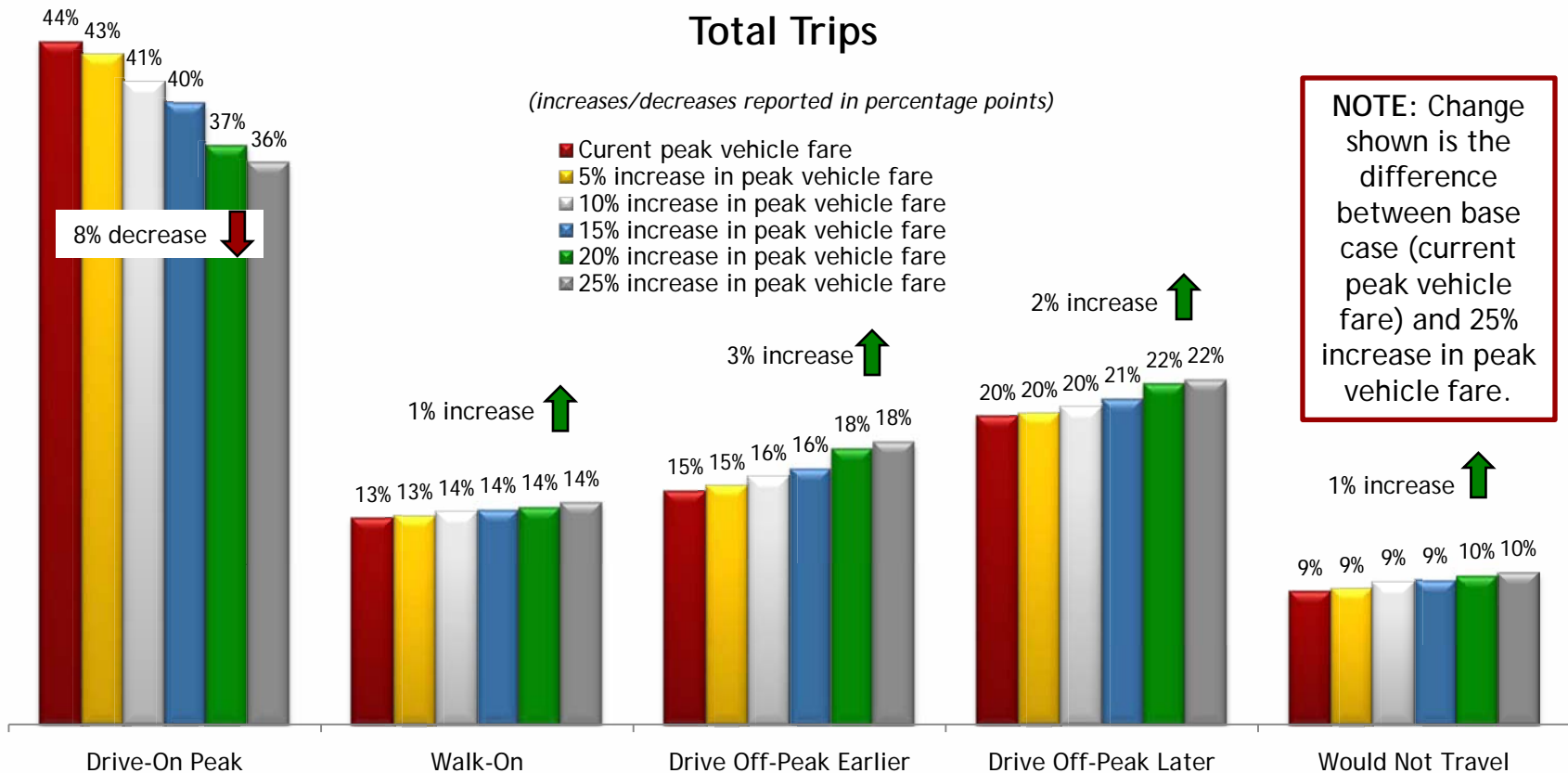
Simulator Result: *Increase in Only Peak Vehicle Fares*

- ❖ By increasing **ONLY** peak vehicle fares, there is an 8 percentage point decrease in peak period drive-on vehicle usage.
- ❖ There is a 5 percentage point increase in off-peak (either first boat before or after the peak period) drive-on behavior.
- ❖ There is little change in either the “would not travel” percentage or walk on at peak (1 percentage point increase each).

Total Trips

(increases/decreases reported in percentage points)

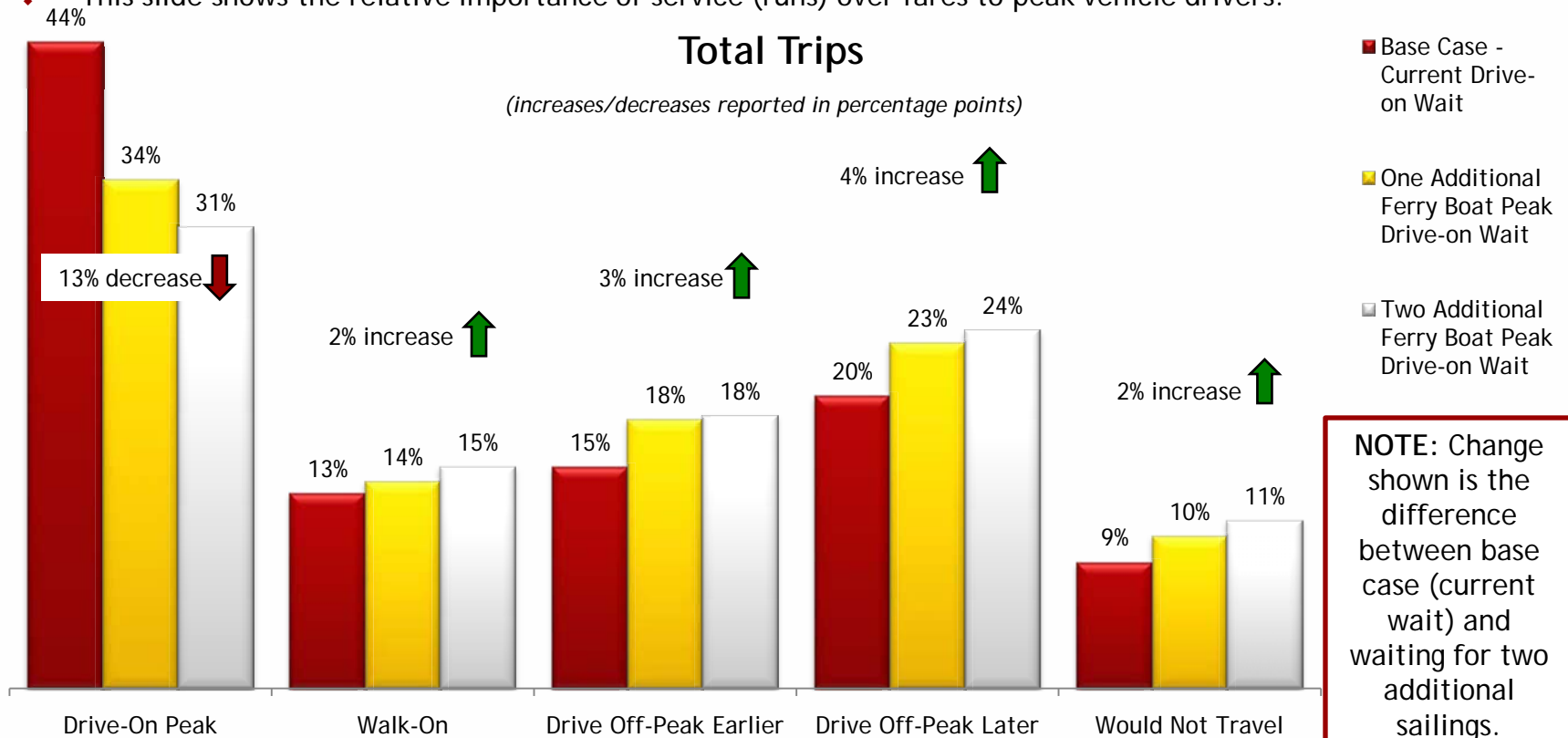
- Current peak vehicle fare
- 5% increase in peak vehicle fare
- 10% increase in peak vehicle fare
- 15% increase in peak vehicle fare
- 20% increase in peak vehicle fare
- 25% increase in peak vehicle fare





Simulator Result: *Increases in Wait Time for Peak Vehicle Drivers*

- ❖ More impactful than a 25% increase in fares is an additional one/two ferry boat wait for peak vehicle drivers.
 - By increasing the wait time to one or two sailings during peak hours, there could be a 10-13 percentage point decline in peak drive-on behavior with the majority switching to walk-on (2 percentage points) and off peak drive-on (7 percentage points either first boat before or after peak).
- ❖ This slide shows the relative importance of service (runs) over fares to peak vehicle drivers.



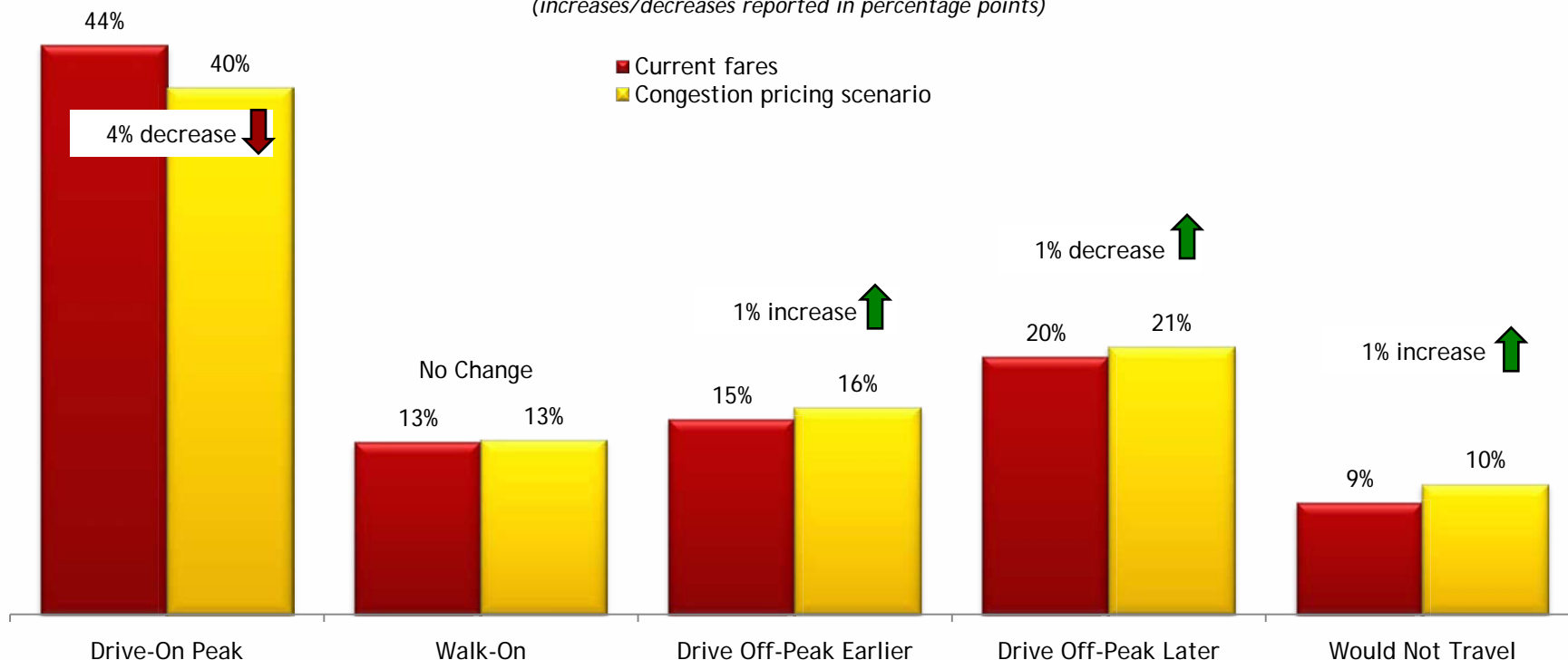


Simulator Result: 15% Peak Vehicle Fare Increase Coupled with a 5% Increase in Walk-on & Off-Peak Vehicle Fares

- ❖ This simulation shows the results of one congestion pricing option where peak vehicle fares are increased by 15% coupled with a 5% increase in walk-on fares (both peak and off peak) and a 5% increase in off-peak vehicle fares.
- ❖ Under this congestion pricing scenario, vehicle traffic at peaks times would decline by 4 percentage points.
- ❖ There would be a 2 percentage point increase in off-peak vehicle travel under this congestion pricing scenario.
- ❖ This scenario would only see a 1 percentage point increase in the “would not travel” behavior.

TOTAL: 15% Peak Drive-on Increase/5% Off-Peak/Walk-on Increase

(increases/decreases reported in percentage points)





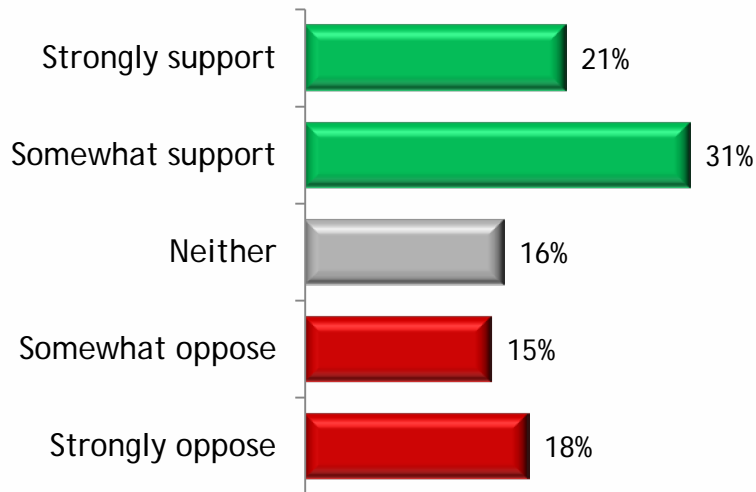
Tariffs & Surcharges



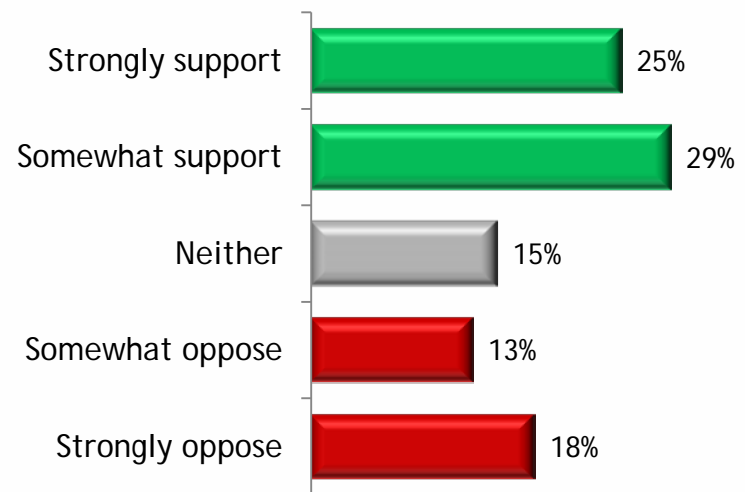
July/August Single-Fare Increase (Summer)

- ❖ Of those who believe that single-fare tickets for a single trip should be priced higher during the summer season than during the winter season, 52% support charging an additional 10% over current summer single-fare prices during July and August as a way to manage wait times.
 - Conversely, 33% oppose the price increase during the months of July and August.

**Support Higher Single-Fare Price
July-August - By Rider**
(n=1,974)



**Support Higher Single-Fare Price
July-August - By Volume**
(n=1,974)



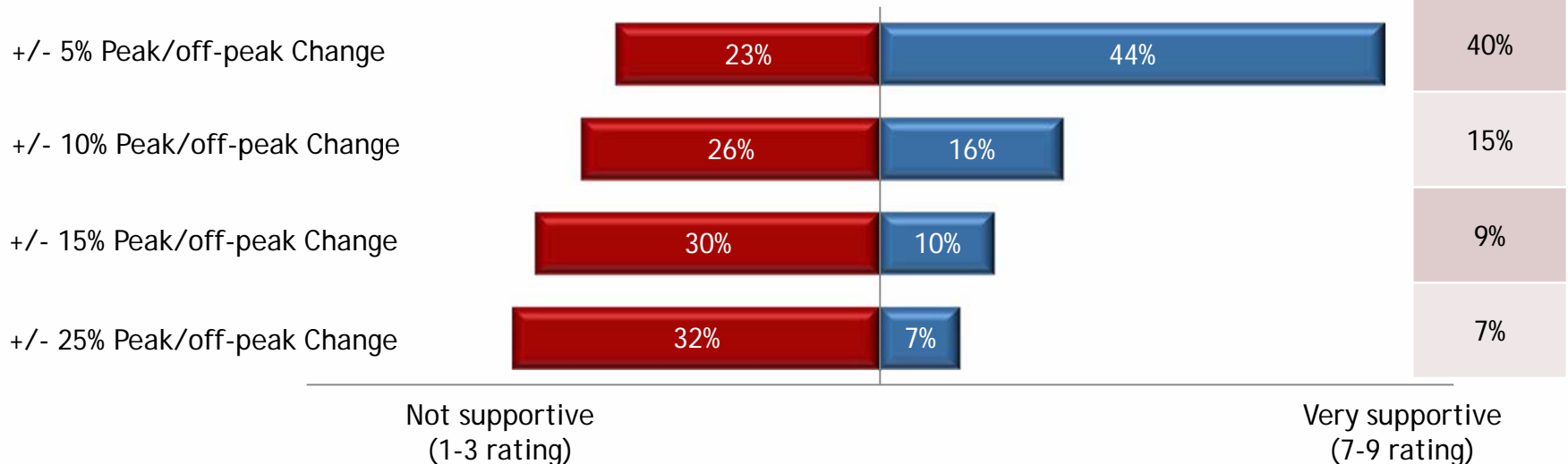
N20 As a general policy, would you support or oppose WSF charging an additional 10% over the current Summer single-fare ticket prices during the months of July and August when wait times are the greatest, as a way to manage wait times?



Support for Seasonal Congestion Pricing Changes

- ❖ There is an inverse relationship between support of the peak/off-peak summer congestion pricing and the percentage of increase/decrease (e.g. the higher the percent change, the lower the support of the fare alternative).
- ❖ Support for congestion pricing is not significantly lower when weighted by volume.
 - No significant differences were found between riders of different routes regarding potential congestion pricing changes.

Support for Off-Peak/Peak Fare Changes (Summer) (n=2,942)

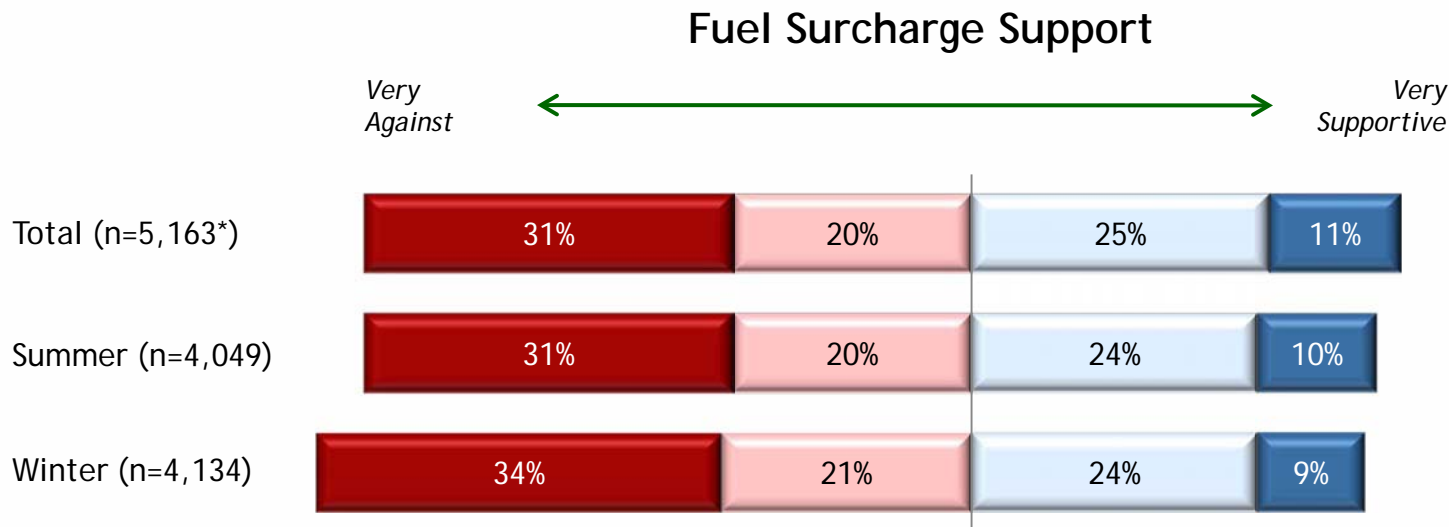


Q1 Please rate how supportive you would be of using this potential option to reduce peak Summer period vehicle demand.



Fuel Surcharge Support

- ❖ Overall, 36% of riders support a fuel surcharge to recoup some of the higher than expected fuel costs; however, 51% are against the implementation of a fuel surcharge.
 - Support is significantly lower when looking at summer riders, weighted by volume (34% by rider vs. 28% by volume).
 - Support of the fuel surcharge is consistent among riders surveyed during the summer and winter period.



*Only ratings of support (4-5) or lack of support (1-2) are shown.
Ratings of 3 or don't know are not shown.*

**Differs due to weighting*

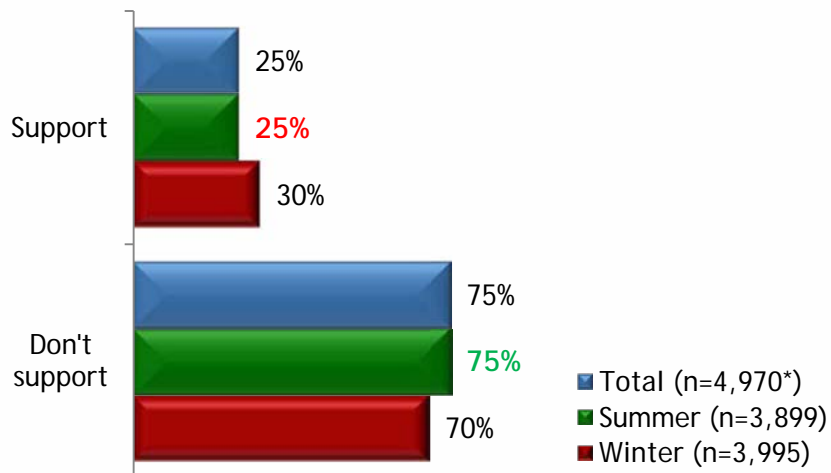
Q3 How supportive would you be of a fuel surcharge on ferry fares to recoup some of the cost of higher than expected fuel costs?



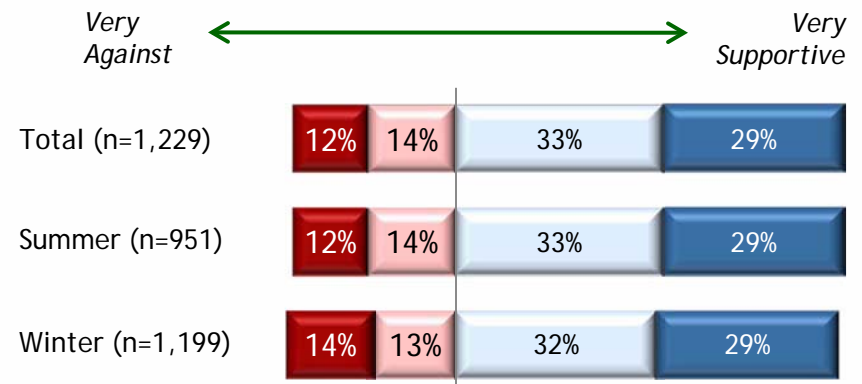
Higher Fares for Non-Residents

- ❖ One quarter of riders **support introducing higher fares** for out-of-state ferry passengers.
 - Significantly fewer summer riders support the higher fares for non-residents, which is likely due to the larger number out-of-state recreational travelers.
- ❖ On average, of those in support of higher fares for non-residents, riders propose that non-residents be charged **21% more** than residents for ferry travel.
- ❖ Of those who originally supported higher fares for non-residents, three fifths (62%) remain supportive after considering the extra time that may be needed to verify residency.

Higher Fares for Non-Residents



Support Given Extra Time Needed



Only ratings of support (4-5) or lack of support (1-2) are shown.
Ratings of 3 or don't know are not shown.

Q6 How you would feel about introducing higher fares for out-of-state ferry passengers?

*Differs due to weighting

Q7 What percent more should non-residents be charged than residents for ferry travel?

Q8 How supportive would you be of this type of program given that extra time could be needed to verify residency?



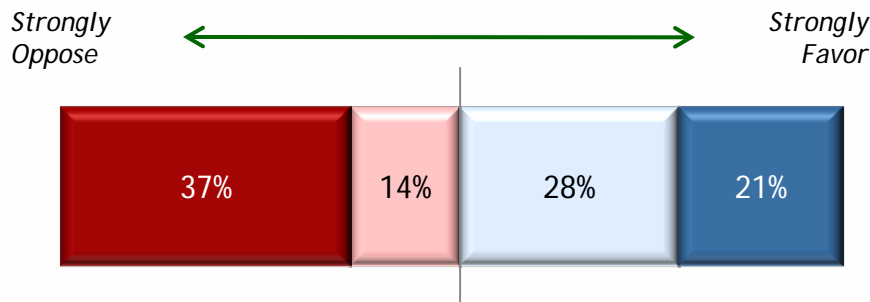
Reservation System



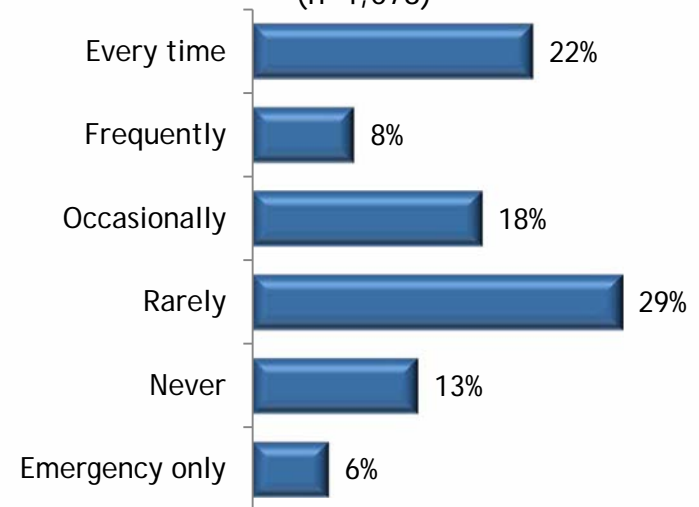
Reservation Program - Support & Use (Summer)

- ❖ Riders are split in their support for a reservation system, with 49% in favor and 51% opposed to the implementation of the program.
 - Reservation system support decreases when weighted by volume (44% by volume vs. 49% by rider).
- ❖ When asked how often they would use the reservation system if it were in place, the top mentioned response was rarely (a few times per year or for recreational trips only) by riders (29%) and by volume (25%).
 - 22% of riders report they would most likely take advantage of the reservation system every time they drive onto the ferry (27% among more-frequent riders).

Reservation Program Support (n=3,981)



Expected Use of Reservation System (n=4,078)



RS1 Based on the information above, would you favor or oppose WSF offering the above vehicle reservation program?

RS2 If the vehicle reservation system described was offered, how often would you take advantage of the system to reserve a guaranteed space on the ferry for your vehicle at a specific boarding time?



Thank You!

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